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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional): A310429.1US

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on November 1, 2006

Signature: Sarah Osborn Hill

Typed or printed name: Sarah Osborn Hill

Application Number	Filed
10/722,234	11/25/2003

First Named Inventor: David W. Herbage

Art Unit	Examiner
3641	Clement, Michelle Renee

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

- [ ] applicant/inventor.
- [ ] assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)
- [ ] attorney or agent of record. Registration number _____.
- [X] attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34: 55,267

Sarah Osborn Hill
Signature

Sarah Osborn Hill
Typed or printed name

502-562-7319
Telephone number

November 1, 2006
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

[X] *Total of 1 forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant:	§	
	§	
David W. Herbage	§	
	§	
Filed: **November 25, 2003**	§	Art Unit: **3641**
	§	
Serial No.: **10/722,234**	§	Examiner: **Clement, Michelle Renee**
	§	
	§	Attorney Docket No.: **A310429.1US**

For: **Countermeasure System and Method of Using the Same**

PRE-APPEAL BRIEF REQUEST FOR REVIEW FILED CONCURRENTLY WITH NOTICE OF APPEAL

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

In response to the Final Office Action dated September 1, 2006 and in view of the pending claims being rejected twice, Applicant hereby requests a pre-appeal conference pursuant to the Pilot Program established in the Official Gazette dated July 12, 2005 and indefinitely extended January 1, 2006. No amendments are being filed with this request.

Claims 44 and 46 through 53 were rejected under 35 U.S.C. § 103(a) as being obvious in light of Becker (U.S. Patent No. 4,662,265), Gassler (U.S. Patent No. 4,681,014), Grosso (U.S. Patent No. 5,425,514), and Finkelstein (U.S. Patent No. 3,245,318). Claim 54 was rejected under 35 U.S.C. § 103(a) as being obvious in light of Becker, Gassler, Grosso, Finkelstein, and Null (U.S. Patent No. 4,149,166). A *prima facie* case of obviousness has not been made and Applicant respectfully requests that the panel reverse the rejections and allow the pending claims.

A *prima facie* case of obvious has not been made because not all the elements of Applicant's invention are disclosed in the cited references, and there is no motivation to combine the prior art references. *See* MPEP § 2143.

Contrary to the assertion in the office action, Becker does not disclose a means for rotating the ***launch tube about its axis*** for training the countermeasure cartridge in azimuth while disposed on the base. [Office Action Mailed September 1, 2006, p.4] Becker discloses a system for horizontally orienting (aiming) a rotatable weapon's platform. [col. 1, ll. 31-42] In Becker, the base rotates around the central axis of the base, not around the central axis of the tube. [*See* Figs. 1- 2; col.2, l. 63 - col. 3, l. 4; col. 4, ll. 19-22] Additionally, none of the references cited disclose a system for ***vertically*** launching a countermeasure cartridge which is trained ***only*** in azimuth. Becker does not teach anything regarding the orientation of a launch tube, its teachings are limited to the ***horizontal orientation*** of a ***weapon's base***. None of the other references identified disclose a vertical launch system.

The cited references are from non-analogous art. The system in Becker provides a weapon's platform for howitzers, mortars, and anti-aircraft weapons which are well known not to be vertically trained. These weapons handle fired projectiles, meaning an explosion occurs in the tube which propels the projectile out of the tube. Further, such weapons exhibit rifled barrels for firing spin stabilized projectiles. The present invention is directed to a spin free missile, including a guide track and key means to ensure no rotation. The countermeasure cartridge is self-propelled meaning a propulsion module, such as a rocket motor, exhibits a comparatively slow burn, as compared to gun powder, to propel the projectile from the tube and on its course. It is a system totally unrelated to Becker as to launch and control.

Gassler is directed to a guide system for preventing rotation of a missile during on-loading in a launching tube while permitting a controlled translation of the missile in the launching tube when subjected to external seismic shocks. The alignment is only functional during the loading process. The missile rests on top of a missile support ring which is attached to the guide system mounted to the silo or other such device. The guide system is not interconnected to the missile so as to operate in guiding it during launch. There is no information in the disclosure to suggest whether the missile is spin stabilized or stabilized by a variety of control jets as are most large offensive missiles.

It is suggested it would have been obvious to a skilled artisan to combine Becker and Gassler to produce a "launcher that had decreased rotational movement during on-loading of

the missile in order to decrease cable winding[1] and increase precision." [Office Action Mailed September 1, 2006, p.5] First, Becker discloses a system for aiming a weapon's platform, not for decreasing the rotation of a launcher; therefore, Becker could not have provided the stated motivation. Second, the combination of Becker and Gassler is illogical. There is no need for a base to horizontally orient a missile launched from a silo. Third, the stated motivation does not describe applicant's invention. To establish obviousness, the prior art must suggest the desirability of the ***claimed*** invention. *See* MPEP § 2143.01 Applicant's invention fixes the countermeasure cartridge in the launch tube via a keyway and guide key, allows rotation of the tube about its axis to train the countermeasure cartridge in only azimuth, then provides for non-rotational axial movement throughout the launch.

Grosso is also non-analogous art. Although it relates to a missile, the invention in Grosso is directed to a spin stabilized guidance system which is an onboard control system used to control flight path. These types of onboard systems are not an integral part of Applicant's invention. Grosso is directed to a controlled projectile for launch and increased maneuverability through sensing various spin characteristics, nutation frequency, and a torquer assembly for developing a force in a lateral direction. Grosso is directed to sensing the operating parameters of a spin stabilized projectile and other than mentioning a canard, has no relevance to the present invention.

Finkelstein discloses a missile launcher with guide rails and a guide track that prevents rotation of the missile during the launch stage. [col. 3, ll. 35-45] It discloses a flotation missile launcher designed for launching a missile from a body of water so that the missile is easily handled and serviced while waterbourne. [col. 1, ll. 15-18] Finkelstein is not trained in azmuith for its launch course, and discloses no means to train the missile by rotating a launch tube. There is absolutely no suggestion or motivation to combine it with Becker, directed to missile launch platform which attaches to vehicles, and Gassler, directed at missile launching from large silos "to obtain a system that prevents rotation of the missile during launching." [Office Action Mailed September 1, 2006 p.5] The apparatus which comprises the invention in Gassler is attached to a support ring. The missile is attached to the support ring and positioned in the silo so that it will connect to the appropriate programming mechanisms within the silo. The

[1] Cable winding occurs during loading of a missile into a launch tube.

apparatus and the support ring stay in the tube when the missile is fired. They have no function during the launch. The guide system in Finkelstein prohibits rotation during launch so that the fins of the missile do not become entangled with the support structure. Applicant's invention effects non-rotational axial movement during launch such that the countermeasure cartridge remains trained in azimuth. Neither Finkelstein, Becker, Gassler, nor Grosso, together or separately, suggest that limitation nor provide any motivation to be combined to create Applicant's invention.

Null discloses a sophisticated Doppler countermeasures system. It teaches a decoy that exhibits the same Doppler effect as the target thus re-targeting an enemy Doppler seeker. The motivation to combine this reference with the others is identified as "to obtain a system that was effective for protection against Doppler attacks." [Office Action mailed September 1, 2006 p.6] But applicant's invention discloses a countermeasure system for vertically launching a countermeasure cartridge ***trained only in azimuth***. There is no motivation to combine Finkelstein, Becker, Gassler, Grosso, and Null to produce the claimed invention.

Applicant's invention allows for vertical launch of a countermeasure cartridge trained only in azimuth by placing the countermeasure cartridge in the vertical launch tube which is then rotated ***about its own axis*** to train the countermeasure cartridge in azimuth. The countermeasure cartridge is held in place during launch by a keyway in the tube which fits a key on the missile. There is no suggestion, teaching or motivation to combine the cited references to create Applicant's invention. Moreover, not all of the elements of Applicant's invention are contained in the cited reference. Therefore, the rejection is improper and the claims should be allowed.

Respectfully submitted,

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November 1, 2006
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